CLAIMS

What is claimed is:

5   1.   A display unit comprising:

a passive matrix of independently controllable pixels comprising n rows

and m columns of discrete pixels, said passive matrix operable to generate an

image in response to electronic signals driven from row and column drivers

coupled to said passive matrix, said image representative of information stored in

10   a frame buffer memory; and

a pixel border having a predetermined width, said pixel border

surrounding said passive matrix and comprising a plurality of pixels which are

uniformly controlled between an on and an off state by a common threshold

signal.

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2.   A display unit as described in Claim 1 and further comprising:

a contrast adjustment circuit for adjusting voltage levels supplied to said

row and column drivers to adjust the contrast of said image of said passive matrix,

and wherein said contrast adjustment circuit is also operable to adjust said

20   common threshold signal to match the contrast of said pixel border to that of said

passive matrix.

3.   A display unit as described in Claim 1 wherein said image has a

white background and a black foreground and wherein said pixel border is driven

25   to said on state to be white to match said background.

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4.   A display unit as described in Claim 1 wherein said passive matrix is negative display mode liquid crystal display technology.

5   5.   A display unit as described in Claim 4 wherein said liquid crystal display technology is supertwisted nematic.

6.   A display unit as described in Claim 1 wherein said passive matrix is electronic ink technology.

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7.   A display unit as described in Claim 1 wherein said passive matrix is microelectromechanical system (MEMS) technology.

8.   A display unit as described in Claim 1 and further comprising a drive

15   circuit responsive to a single control signal for generating said common threshold signal.

9.   A display unit as described in Claim 1 wherein each pixel of said passive matrix comprises: a red subpixel; a green subpixel; and a blue subpixel,

20   said subpixels of a matrix pixel sharing a common row and spanning three columns.

10.   A display unit as described in Claim 9 wherein each pixel of said pixel border comprises: a red subpixel; a green subpixel; and a blue subpixel.

11.   A display unit as described in Claim 1 wherein said predetermined width is two pixels.

5   12.   A display unit as described in Claim 1 wherein said passive matrix comprises 160 rows and 160 columns of discrete pixels.

13.   A display unit comprising:

a passive matrix of independently controllable pixels comprising n rows

10   and m columns of discrete pixels, said passive matrix being negative display mode and operable to generate an image in response to electronic signals driven from row and column drivers coupled to said passive matrix, said image representative of information stored in a frame buffer memory;

a pixel border having a predetermined width, said pixel border

15   surrounding said passive matrix and comprising a plurality of pixels which are uniformly controlled between an on and an off state by a common threshold signal; and

a contrast adjustment circuit for adjusting voltage levels supplied to said row and column drivers to adjust the contrast of said image of said passive matrix,

20   wherein said contrast adjustment circuit is also operable to adjust said common threshold signal to match the contrast of said passive matrix.

14.   A display unit as described in Claim 13 wherein said image has a white background and a black foreground and wherein said pixel border is driven

25   to said on state to be white to match said background.

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15.   A display unit as described in Claim 13 wherein said passive matrix

is supertwisted nematic liquid crystal display technology.

5   16.   A display unit as described in Claim 13 and further comprising a

drive circuit responsive to a single control signal for generating said common

threshold signal.

17.   A display unit as described in Claim 13 wherein said predetermined

10   width is two pixels.

18.   A display unit as described in Claim 13 wherein said passive matrix

comprises 160 rows and 160 columns of discrete pixels.

15   19.   A portable electronic device comprising:

a processor coupled to a bus;

a memory unit coupled to said bus;

a user input device coupled to said bus; and

a display unit coupled to said bus and comprising:

20   a passive matrix of independently controllable pixels comprising n

rows and m columns of discrete pixels, said passive matrix operable to

generate an image in response to electronic signals driven from row and

column drivers coupled to said passive matrix, said image representative

of information stored in a frame buffer memory; and

a pixel border having a predetermined width, said pixel border surrounding said passive matrix and comprising a plurality of pixels which are uniformly controlled between an on and an off state by a common threshold signal.

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20.   A portable electronic device as described in Claim 19 and further comprising:

a contrast adjustment circuit for adjusting voltage levels supplied to said row and column drivers to adjust the contrast of said image of said passive matrix, and wherein said contrast adjustment circuit is also operable to adjust said common threshold signal to match the contrast of said pixel border to that of said passive matrix.

21.   A portable electronic device as described in Claim 19 wherein said image has a white background and a black foreground and wherein said pixel border is driven to said on state to be white to match said background.

22.   A portable electronic device as described in Claim 19 wherein said passive matrix is negative display mode supertwisted nematic liquid crystal display technology.

23.   A portable electronic device as described in Claim 19 and further comprising a drive circuit responsive to a single control signal for generating said common threshold signal.

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24.   A portable electronic device as described in Claim 19 wherein said predetermined width is two pixels and wherein said passive matrix comprises 160 rows and 160 columns of discrete pixels.